

**Abstract**

A method and system for reading a two-dimensional barcode symbol on a mailpiece. The barcode symbol may be distorted during the printing process or the image acquiring process, rendering it difficult to recognize by a conventional template matching method. Typically, a two-dimensional barcode symbol is composed on a two-dimensional array of visually contrasting blocks. Any group of four adjacent blocks sharing a common corner may form an identifiable pattern. These patterns can be used as internal landmarks. When the barcode symbol is distorted, the distances between the internal landmarks change accordingly. Using an  $L_p$ -norm algorithm to measure the distances in the transform domain, distortion can thus be determined and the global geometry of the barcode symbol restored based on the distance measurements.